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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,281	12/09/2003	Gon Kim	9988.095.00-US	2549
30827	7590	08/14/2007		
MCKENNA LONG & ALDRIDGE LLP			EXAMINER	
1900 K STREET, NW			PATEL, RITA RAMESH	
WASHINGTON, DC 20006			ART UNIT	PAPER NUMBER
			1746	
			MAIL DATE	DELIVERY MODE
			08/14/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/730,281	Applicant(s) KIM ET AL.	
	Examiner Rita R. Patel	Art Unit 1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22, 26-29 and 32-82 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22, 26-29 and 32-82 is/are rejected.
- 7) ☒ Claim(s) 7, 71, 77 and 81 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/7/06; 1/30/07; 5/1/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/30/07 has been entered.

Response to Applicant's Arguments / Amendments

2. This Office Action is responsive to the correspondence filed on 5/1/07. Claims 1-22, 26-29, and 32-82 are currently pending. Claims 1, 4, 7, 11, 15, 27, and 38 have been amended. Claims 23-25 and 30-31 have been previously cancelled. Claims 41-82 have been added

In light of the amendments to the claims, the former rejection over Smith (US Patent No. 5,266,855) has been withdrawn. However, upon further consideration, the instant claims are rejected under new grounds of rejections and thus, claims 1-22, 26-29, and 32-82 are rejected for the reasons of record.

Applicant's Remarks filed 4/30/07 are drawn to the former rejection and are now considered moot because of a new grounds of rejection taught herein.

Drawings

3. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claim 7 is objected to because of the following informalities: the fourth word in line 2 appears to be a typo; it appears there is an extra "a". Appropriate correction is required.

5. Claim 71 is objected to because of the following informalities: in line 1 there appears to be a typo, it appears that "has" was meant to be written as "have".

Appropriate correction is required.

6. Claim 77 is objected to because of the following informalities: in line 4, the following does not follow grammatically, "a positioning protrusion provided at the other of the stator". Appropriate correction is required.

Art Unit: 1746

7. Claim 81 is objected to because of the following informalities: in lines 1-2, the following does not follow grammatically, "the bearing housing is insert injection molded". Appropriate correction is required.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-2, 4-5, 7-8, 10-12, 14-22, 26, 36, and 38-82 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim et al. (US Patent No. 6,460,382).

Kim teaches a washing machine having therein a plastic tub 2 with a rear wall 20, drum 3, shaft 4, motor 5, bearings 6a, 6b, bearing housing 7, stator 14, fastening member 15a, rotor 13, magnetic core 145 formed of segregated layers of magnetic material, and a coil 142 wound around each of winding parts 141 and fastening ribs 143. See Fig. 6.

As seen in Fig. 2B, it is illustrated that the fastening part 15a has a height greater than 20% of a total stack height of the helical type core. As seen in Fig. 6, there are 3 or more fastening ribs 143 with holes therein. Kim further discloses that fastening bosses 202 along a circumference on an outer side of the hub 201 on the rear wall 200 of the tub 2 at fixed intervals permits to fix the stator 14 to the rear wall 200 (col. 5, line 57; col. 6, lines 1-2. Ribs 203 are located at one side of the tub. Kim teaches brass

Art Unit: 1746

bushing 11 (metal tube press fit) is located on the rear of the tub wall and in front of the bearing housing (metal tub supporting plate). Also, the tub 2 is injection molded (col. 4, line 67; col. 5, lines 19-26). Fastening holes 137 are used for fastening a connector 16 to the rotor 13 and positioning holes 138 are used for positioning an assembly position of the connector 16 around the through hole 131 in the hub 132 of the rotor 13 at fixed intervals.

In re claims 59-72, as illustrated by Kim in Figure 2B, Kim shows steps/ first, second, and third extensions. The step that fastening part 15a extends through reads on Applicant's claim for a first extension; this step extends radially in a circumferential manner. The step support 17 extends through reads on Applicant's claim for a second extension; this step extends radially in a circumferential manner. The step formed between said first and second extension reads on Applicant's claim for a second extension; this step extends radially in a circumferential manner

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 3, 6, 9, 13, 27-29, 32-35, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim as applied to claims above.

Art Unit: 1746

In re claims 27-29, 32-34, and 37, Kim teaches the claimed invention except Kim fails to explicitly teach a weight heavier than 1.5 kg for the stator for mounting on the stator fastening part of the bearing housing. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to establish an optimal weight requirement for the stator to achieve appropriate immobility of the stator since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Also, it would have been obvious to one of ordinary skill in the art at the time of the invention to optimize the weight of the stator in order to keep motor efficiency at a reasonable level.

In re claims 3, 6, 9, 13, and 35, Kim teaches the claimed invention, except fails to indicate if the fastening part has a spring pin or a rivets disposed therein. However, the use of a spring pin and/or rivets in the Kim invention would have been obvious to one of ordinary skill in the art at the time of the invention since spring pins and rivets are known fastening substitutions to screws and/or sleeves for providing equivalent fastening functions. It would be obvious to one of ordinary skill in the art at the time of the invention to use substitution of known equivalent structures. *In re Fout* 213 USPQ 532 (CCPA 1982); *In re Susi* 169 USPQ 423 (CCPA 1971); *In re Siebentritt* 152 USPQ 618 (CCPA 1967); *In re Ruff* 118 USPQ 343 (CCPA 1958). Applicant has not shown that spring pins, metal tube press fit, or rivets have a criticality. It appears that the invention would perform equally well with other fasteners and the selection of any of these known

Art Unit: 1746

equivalents to provide fastening functions would be within the level of ordinary skill in the art.

Conclusion

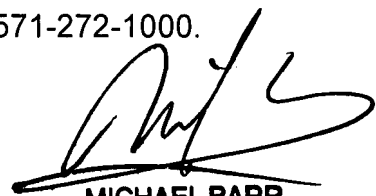
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rita R. Patel whose telephone number is (571) 272-8701. The examiner can normally be reached on M-F: 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



rrp



MICHAEL BARR
SUPERVISORY PATENT EXAMINER